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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sachiko Nemoto

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EXAMINER

RIVAS, SALVADOR E

ART UNIT

PAPER NUMBER

2477

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/728,938	Applicant(s) NEMOTO ET AL.	
	Examiner SALVADOR E. RIVAS	Art Unit 2477	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2 and 4 is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Action is in response to Applicant's amendments filed on June 18, 2010. **Claims 1, 2, 4, and 5** are now pending in the present application. **This Action is made Final.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kong et al. (U.S. Patent Application Publication # 2002/0176450 A1)** in view of **Patenaude (U.S. Patent Application Publication # 2004/0076168 A1)**.

Regarding **claim 5**, Kong et al. teach a frame transmission method for frame transmission for an Ethernet frame and synchronous optical network frame in a node (read as methods and systems to “selectively carry Ethernet signals over a SONET/SDH network” (Paragraph [0014])), comprising:

inputting an Ethernet frame having a VLAN identifier (Fig.4A) corresponding to a path identifier of a synchronous optical network to give the path identifier to the Ethernet frame in the node (Fig.1 @ 62; Fig.8 @ 358) among the plurality of Ethernet frames passes through to be multiplexed (“The 802.1Q specification establishes a standard method for inserting virtual LAN (VLAN) membership information into Ethernet frames” (Paragraph [0012]) For example, as shown in Fig.4A the Ethernet frame includes a VLAN TAG header comprising of 802.1Q Tag type field and Tag Control information field. Furthermore, the Tag Control information field may contain VLAN and Class of Service (COS) services);

and establishing a multiplexer (Fig.8 @ 358) corresponding to path identifier of said synchronous optical network, each of which is operable to multiplex an Ethernet frame (Fig.4A). (read as mapping mechanism used to map ETHERNET/SONET signals (Fig.1 @ 62; Paragraph [0062]) For example, “For SONET network path selection, any information that can potentially aid in route computations or be used in service

differentiation may be incorporated into the routing protocol, as either a standard element or a vendor specific extension.” (Paragraph [0065]) Furthermore, using a routing algorithm (Fig.6B) may be used “to obtain CID (Channel ID) for the extension header or VCL or double VLAN ID to determine the remote port id.”(Paragraph [0062]))

However, Kong et al. fail to teach breaking down a frame using a filtering part when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by the holding part.

Patenaude teaches a device that “permits exchange of information between optical carrier systems and packet networks.” (Paragraph [0017] Lines 1-3) Furthermore, Patenaude teaches a SONET multiplex isolation device (Fig.3 @ ADM) breaking down (read as intelligent traffic shaping) a frame using a filtering part (read as a policing, shaping, flow control and subscriber management functionality (Fig.8 @ 806 , Paragraph [0045], Paragraph [0046] 1-5)) when a VLAN identifier (read as a usage statistic based on class-of-service (CoS)/quality of service (QoS) for network management and SLA) of the frame is different from any one of the VLAN identifiers (read as a usage statistic based on class-of-service (CoS)/quality of service (QoS) for network management and SLA) that is held by said holding part (Fig.8 @ 806). (“The present invention may provide subscriber port shaping/policing capabilities configurable to support IP Differentiated Services Code Point (DSCP) prioritized and/or weighted queuing enabling, ...”(Paragraph [0046] Lines 5-8) Furthermore, the policing, shaping, flow control and subscriber management functionality module may execute “Discretionary traffic shaping may be based on flow/priority type, and may permit traffic

shaping at a physical port to be honored as may be required by a service level agreement (SLA).” (Paragraph [0046] Lines 27-30) Also, the policing, shaping, flow control and subscriber management functionality module may “permit the collection of usage statistics based on class-of-service (CoS)/quality of service (QoS) for network management and SLA conformance purposes. Key benchmarks in such agreements may be latency, latency variation and data loss, and such parameters may be measured by an embodiment of the present invention. Other statistics that may be collected include port, VLAN, and 802.1D(p) traffic statistics, and available resources (bandwidth, buffer space, protection bandwidth, etc).” (Paragraph [0047] Lines 2-10))

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ Ethernet/SONET conversion capabilities and policing, shaping, flow control and subscriber management functionalities as taught by Patenaude with Ethernet/SONET frame mapper taught by Kong et al. for the purpose of efficiently establishing communication between a telecom SDH/SONET transmission device and a remote access datacom device by adapting ETHERNET frame directly to SDH/SONET and vice versa.

Allowable Subject Matter

3. **Claims 1, 2, and 4** are allowed.

Regarding **claim 1**, the best prior art found during the examination of the present, **Patenaude (U.S. Patent Application Publication # 2004/0076168 A1)** in view of **Zelig et al. (U.S. Patent Application Publication # 2002/0110087 A1)**, and further in view of **Yu (U.S. Patent Application Publication # 2001/0043603 A1)**, fail to disclose “... a

plurality of multiplexing parts, each of which is established corresponding to STS path identifier respectively and each of which is operable to multiplex an Ethernet frame having said specific VLAN identifier corresponding to said specific STS path identifier that is held by said 1st holding part among a plurality of input Ethernet frame VLAN identifiers;"

Claim 2 is also allowed by virtue of their dependency on claim 1.

Regarding **claim 4**, the best prior art found during the examination of the present, **Yu (U.S. Patent Application Publication # 2001/0043603 A1)**, in view of **Kong et al. (US Patent # 2002/0176450 A1)**, and further in view of **Patenaude (U.S. Patent Application Publication # 2004/0076168 A1)**, fail to disclose "... a plurality of multiplexing parts, each of which is established corresponding to STS path identifier respectively and each of which is operable to multiplex a plurality of Ethernet frames having a specific VLAN identifier corresponding to the specific STS path identifier that is held in the 1st holding part among an input plurality of Ethernet frame VLAN identifiers, along with a 2nd SONET multiplex isolation device among the plurality of SONET multiplex isolation devices with a 2nd holding part with the SONET frame specific STS path identifier and Ethernet frame specific VLAN identifier placed opposite each other;"

Response to Arguments

4. Applicant's arguments with respect to claim 5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or early communications from the Examiner should be directed to Salvador E. Rivas whose telephone number is (571) 270-1784. The examiner can normally be reached on Monday-Friday from 7:30AM to 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Chirag G. Shah can be reached on (571) 272- 3144. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Salvador E. Rivas
S.E.R./ser

August 23, 2010

/Chirag G Shah/

Supervisory Patent Examiner, Art Unit 2477